

SFWMD System Simulated for the LORSS

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Objective

- Describe SFWMD system operational/physical features included in the SFWMM simulations performed by USACE during the Lake Okeechobee Regulation Schedule Study (LORSS)

Main Features

- Represent the expected SFWMD system configuration and operations for the period January 2007 to December 2009.
- Derived from the current configuration and operations with the additional features described below.
- The South Florida Water Management Model (SFWMM) v5.5.2 was used by USACE to evaluate alternatives

Additional Features

- When LOK stage is in Zone D and WSE calls for releases south, available capacity through the L-8 the C-51 canals is used to send flood control releases to tide.
- LOK flood control releases south are sent only to STA 3/4, taking into account lately experienced treatment capacity limitations in this STA.
- LOK flood control releases to WCA-3A are also constrained by the Interim Operational Plan (IOP) for protection of the Cape Sable seaside sparrow.

Additional Features

- **Lake Okeechobee Supply Side Management Policy for Lake Okeechobee Service Area is applied as described in Rule 40E-21 and 40E-22:**
 - **The base case includes the SSM triggering line as recommended in the 2000 LECRWSP update (13.0' to 10.5' line).**
 - **The SSM line was lowered by 1.0 ft in all the alternatives as a surrogate to the new Lake Okeechobee drought management policy currently being developed by the District.**
 - **Maximum cutbacks in LOSA follow a phased approach of 15, 30, 45 and 60% in phases 1 through 4 respectively. The phase is declared by comparing the end of the dry season Lake projected stage with the May 31st SSM reference stage: 10.5' in the base case and 9.5' in the alternatives**

Additional Features

- The base case and all the alternatives include temporary forward pumping from Lake Okeechobee for water supply purposes:
 - Forward pumping is initiated when Lake stage recedes below 10.2 ft, and is terminated when Lake stage increases above 11.2 ft.
 - Location and capacity of temporary forward pumps:
 - S-354 into Miami Canal, 400 cfs
 - S-351 into Hillsboro and North New River Canals, 600 cfs
 - S-352 into WPB Canal, 400 cfs
 - Gravity and pumped water supply deliveries can not occur simultaneously at the above locations

Additional Features

- Water Supply cutbacks in the Lower East Coast Urban Areas are simulated as described in Rule 40E-21 and 40E-22
 - Trigger locations in the Service Areas have pre defined stages that trigger Phase 1 to Phase 4, with percent cutbacks in the amount of 15, 30, 45 and 60%.
- When LOK is under SSM, Phase 1 cutbacks are imposed on the urban areas

Additional Features

- **No EAA runoff reduction as a result of BMP implementation**
- **No BMP Make-Up Water deliveries from Lake Okeechobee to the Everglades**
- **No Lake Okeechobee Adaptive Protocol Releases from Lake Okeechobee to the estuaries**
- **WCA-3A deliveries to the ENP and South Miami-Dade operations follow IOP**
- **Rainfall Plan deliveries to ENP are supplemented with Lake releases when the WCA-3A stage is below the corresponding floor elevation (8.5')**